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**DEPARTMENT OF THE NAVY**  
 COMMANDER MILITARY SEALIFT COMMAND  
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## COMSC INSTRUCTION 4700.16

Subj: MSC GENERAL TECHNICAL REQUIREMENTS

Ref: (a) COMSCINST 4700.10A, Standardization of MSC Work Packages

Encl: (1) MSC Drawing No. 803-7081122; MSC General Technical Requirements  
 (2) MSC Drawing No. 803-7081124; MSC Work Item Preparation Guide

1. Purpose. To promulgate the Military Sealift Command (MSC) General Technical Requirements (GTR) (enclosure (1)) and the MSC Work Item Preparation Guide (enclosure (2)). These documents set forth a method of performing and standardized format for developing individual work items, respectively. These documents are provided to facilitate the standardization of work package development and accomplishment of work requirements associated with the repair and overhaul of MSC ships.

2. Scope. The requirements of this instruction apply to all MSC owned, civilian mariner (CIVMAR) operated ships. Compliance with this instruction shall be required for all work packages whose preparation begins on or after the effective date of this instruction and for selected ship operating subcontracts for repair or industrial assistance awarded after the effective date of this instruction.

3. Background. In recognition of the need for standardization, COMSC has developed a guide for use in developing work items (enclosure (2)). This guide also includes a standard work package index. Development of a work package still requires rigorous attention to ensure that each work requirement is adequately addressed and that the responsibilities of the Government and the Contractor are clearly delineated.

4. Definitions. The following definitions apply to terms used in this instruction:

a. General Technical Requirements (GTR). The standards of performance for the work directed by work items. The GTRs are controlled by COMSC.

b. Preparing Activity. Any organizational command or Contractor preparing a work package.

In general, a period should be used only after a complete sentence. Phrases or single words are not to be followed by a period.

Use active voice, e.g. "Perform the work using Reference 2.1 as guidance." Appendix A contains a listing of active verbs and their MSC definitions for use when tasking work in the work item.

When referring to a specific ship compartment, state the compartment name with first letters capitalized followed by the compartment number in parentheses, "Sewage Pump Room (4-19-5-E)", for example. When referring to a space without using an assigned name, state the function (uncapitalized) and the compartment number without parentheses, i.e. "fuel tank 5-144-0-F".

**3.5 Regulatory Body Approvals.** At the time of actual installation, all regulatory body approvals are needed. This is typically the shipyard's responsibility. The work item author's responsibility is to obtain ABS approval at the guidance level and to have ABS perform USCG consultative review at the guidance level. This is required before the final item is incorporated into a work package. Work items requiring ABS approval shall include the term, ABS, at the end of the title (see Section 4.1).

**3.6 Guidance Level.** Work items are performance oriented; the shipyard determines how to do the work. Enough guidance is provided by MSC to bring forth any critical information that the shipyard needs to know. The shipyard is responsible for shipchecking all aspects of the work item. The burden is on the shipyard to provide a fully designed, approved and functional system. However, the drafter of a work item/guidance drawing must ensure that the design conceptually shown will work. For that reason, validation shipchecks by the guidance drawing drafter may be required.

The Contractor is responsible for design and implementation of a fully functional system, for compliance with all applicable GTRs, for overcoming interferences not shown on the contract guidance drawings but which would be visible on a reasonable shipcheck or should be anticipated by a competent shipyard, for overcoming variations between actual ship conditions and those shown on the guidance drawings to the extent they would be visible on a reasonable shipcheck or should be anticipated and would amount to necessary implementing detail, and, finally, for omissions of details from the work package that are necessary to fulfill the intent of the specifications. For the design approach conceptually presented on the guidance drawings, MSC is responsible for the accuracy of parametric data shown on the guidance drawings and that the specified equipment and materials satisfy cognizant regulatory body requirements. Parametric data includes, but is not limited to, flow rates, amperage rates, linear measurements, etc.

**3.7 Calculations.** All design calculations must be clearly documented and maintained by the cognizant engineers in design notebooks, along with appropriate notes on the design approach, assumptions and resolutions of key issues. The calculations shall be submitted to MSC when the work items are delivered.

**3.8 Salient Features.** When specifying equipment, MSC cannot sole source to a specific vendor (absent written justification and approval). Identify the preferred equipment item (Brand Name or Equal) and list the salient features which will define the minimum requirements should the shipyard proposes another item meeting "form, fit and function". Say "Install pump and motor, Worthington Model 3LR-9, or equal", and then list the salient features required such as 250 GPM at 50 ft., bronze body, monel shaft and impeller, and mechanical seals, for example. State the salient features unambiguously. See Section 4.3, Article 7.0, Salient Characteristics, for more details on how to list salient features.

**3.9 Cut Sheets.** For every item of preferred equipment called out in a work item, a "cut sheet" from an up-to-date version of the manufacturer's equipment catalog shall be copied by the cognizant engineer. These cut sheets, along with point-of-contact information (including company name, address, telephone number and name of contact) and lead time information, shall be submitted to MSC when the work items are delivered. Where a vendor's item is particularly complex or forms a major part of a system (e.g. MSD plant), the system diagram should be sent to the vendor for review.

**3.10 Other.** Do not duplicate information on the drawing and in the work item. This can lead to conflicting information. Get as much information as you can out of the work item and onto the drawing.